II.—*Notes on the Birds of Tsushima and Iki Islands, Japan.*

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The following list with notes on the birds of Tsushima and Iki Islands, between Kiusiu and Corea, is based in part on the collection I made on the occasion of my visit to the islands between the end of September and the early part of November of last year (1920), and in part on specimens preserved in the Tsushima Middle School. The following list of localities with dates will indicate the route travelled :—

September 24. Leave Hakata, Kiusiu. 25. Izugahara, Tsushima. 27. Kechi, do. 28. Mine, do. 30. Nita-mura, do.—October 6. Meboro, do. 11. Waniura, do. 13. Sasuna, do. 15. Nita-mura, do. 17. Izugahara, do. 18. Sasu-mura, do. 19. Izugahara, do. 20. Azamo, do. 22. Aso Channel, do. 23. Tsutsu-mura, do. 23. Aso Channel, do. 24. Komoda, do. 25. Izugahara, do. 26. Kechi, do. 27. Nukadake-mura, do. 29. Kechi, do. 30. Izugahara, do. 31. Katsumoto, Iki Island.—November 4. Leave Ashibe, do. 5. Reach Hakata, Kiusiu.

In the preparation of this paper, Messrs. S. Fukagawa and Y. Utano, of the Tsushima Middle School, have given me many valuable specimens. Mr. N. Teraoka, the collector, has also rendered me very useful help. To all these gentlemen my best thanks are due.

The principal papers on birds of Tsushima were published by the late Dr. Ijima (Journ. Coll. Sci., Imp. Univ. Jap. v. pt. 1, 1891, pp. 105–128), and Seebohm (Ibis, 1892, pp. 87–99, 248–250, & 399–400). Mr. Teraoka and I collected 60 species and subspecies in these islands. I have been able to add 43 species and subspecies to those which have hitherto been known from them, bringing up the total number of forms to 134.

On Iki Island there is nothing published, though Messrs. Namiye and Tsuchida collected some birds there

and brought them back to the Zoological Museum of the Tokyo Imperial University. Mr. Teraoka visited the island and obtained 13 species and subspecies.

All the known species and subspecies of the avifauna of Tsushima and Iki Islands are here listed; those marked with an asterisk indicate the new additions to the avifauna of Tsushima.

*1. **Colymbus stellatus** Pontoppidan.

One specimen is preserved in the Tsushima Middle School.

2. ? **Colymbus arcticus viridigularis** (Dwight).

One young female was obtained in Tsushima (Ijima, p. 126).

3. **Dytes auritus** (Linn.).

Specimens were obtained in Tsushima (Ijima, p. 127; Seebohm, Ibis, 1892, p. 98).

4. **Pedetaithya griseigena holboelli** Reinhardt.

A fine pair was shot at Takeshiki, Tsushima (Ijima, p. 127).

5. **Diomedea albatrus** Pallas.

A specimen was obtained by Jouy in Tsushima, 2 June, 1885 (Clark, Proc. U.S. Nat. Mus. xxxviii. 1910, p. 149).

*6. **Puffinus leucomelas** (Temminck).

One specimen is preserved in the Tsushima Middle School. I observed this bird near the mouth of Katsumoto Harbour, Iki, Oct 16.

7. **Phalacrocorax capillatus** (Temm. & Schl.).

A specimen was obtained in Tsushima (Ijima, p. 122). Another specimen is in the Tsushima Middle School.

8. **Phalacrocorax carbo** [(?) **sinensis** (Shaw & Nodd.)].

Holst obtained an example in Tsushima (Seebohm, Ibis, 1892, p. 400).

*9. **Bubulcus ibis coromandus** (Boddaert).

One young specimen is preserved in the Tsushima Middle School.

10. **Demiegretta sacra** (Gmelin).

D. ringeri Stejneger.

Mr. Teraoka once met with this bird in the southern island of Tsushima, but could not obtain it. Several specimens were collected by Jouy, Ringer, Holst (Seebohm, Ibis, 1892, p. 95) and Messrs. Namiye and Tsuchida (Ijima, p. 122). I am inclined to think that the examples from Tsushima, Corea, and Liu-kiu Islands average smaller than those from Micronesia.

11. **Ardea cinerea jouyi** Clark.

Dr. Ijima reported (in his paper, p. 122) it from Tsushima, and a specimen is in the Tsushima Middle School.

*12. **Gorsachius goisagi** (Temminck).

A fine specimen is in the Tsushima Middle School.

*13. **Butorides striatus amurensis** Schrenck.

An immature female was obtained by Mr. Teraoka at Nitamura, Tsushima, Oct. 4.

*14. **Nannocnus erythmus** (Swinhoe).

An adult specimen is in the Tsushima Middle School.

*15. **Ciconia ciconia boyciana** Swinhoe.

An adult example of this Stork is also to be found in the Tsushima Middle School. This is a remarkable addition to the avifauna af the islands.

16. **Aix galericulata** (Linn.).

Two males were purchased at Agami, Tsushima, Oct. 19; an adult male was obtained by Mr. Teraoka at Azamo, Tsushima, Oct. 21; and a young male was presented by Mr. C. Kato, which was obtained at Nitamura, Tsushima, Oct. 23. Dr. Ijima and Seebohm reported it from the same islands. Common on the streams of the island.

*17. **Anas platyrhyncha platyrhyncha** (Linn.).

An adult female was shot by Mr. Teraoka at Sasuna-mura, Tsushima, Oct. 15. It is rather rare in that season in the islands.

18. **Polionetta pœcilorhyncha zonorhyncha** Swinhoe.

This Duck was reported by Seebohm (Ibis, 1892, p. 96) from Tsushima.

19. **Nettion crecca crecca** (Linn.).

Holst obtained it in Tsushima (Seebohm, Ibis, 1892, p. 96).

20. **Nettion formosum** (Georgi).

Messrs. Namiye and Tsuchida (Ijima, p. 123) and Holst (Seebohm, Ibis, 1892, p. 96) obtained it in Tsushima. The Tsushima Middle School has specimens of the Duck. It is rather common.

*21. **Dafila acuta acuta** (Linn.).

An immature specimen is in the Tsushima Middle School. It is undoubtedly rare.

22. **Bucephala clangula clangula** (Linn.).

Holst obtained the Golden-eye in Tsushima in November (Seebohm, Ibis, 1892, p. 400).

*23. **Mergus serrator** Linn.

A specimen is preserved in the Tsushima Middle School.

24. **Astur gentilis schvedowi** Menzbier.

Seebohm (Ibis, 1892, p. 400) reported the Goshawk from Tsushima.

25. **Accipiter nisus nisosimilis** (Tickell).

One female scarcely adult and three young birds were shot by Mr. Teraoka on Tsushima, Oct. 8, 14, 16, 22. The wings measure: 245 mm., 245 mm., 248 mm., 255 mm. Dr. Hartert (Vög. pal. Faun. ii. p. 1155) considers the Japanese and Corean Sparrow-Hawks to be identical with Indian subspecies, *A. n. nisosimilis* (Tick.).

Swann (Synopt. List Accipitres, Part i. 1919, p. 31) separates the Kamtschatkan and Japanese forms from *nisosimilis* under Dr. Stejneger's name of *pallens*, and he considers that *pallens* is an insular race with light and dark

phases. But Swann added that the distribution of *A. n. nisosimilis* is as follows :—"N. and Central Asia from Turkestan to Japan; in winter to India, Kashmir, Assam, Burma" (*l. c.* Part ii. 1919, Addenda et Corrigenda to Part i.). There is a question whether the two forms—*nisosimilis* and *pallens*—are found in Japan. Further investigation is needed before the question can be settled.

Seebohm (Ibis, 1892, p. 250) reported the Sparrow-Hawk from Tsushima under the name of *A. nisus*. Some specimens are also preserved in the Tsushima Middle School. This Hawk is common on the islands.

*26. **Haliaëtus albicilla** (Linn.).

Two immature specimens are preserved in the Tsushima Middle School.

*27. **Buteo ferox hemilasius** Temm. & Schl.

One specimen is found in the Tsushima Middle School.

28. **Buteo buteo japonicus** (Temm. & Schl.).

Holst obtained this Buzzard from Tsushima (Seebohm, Ibis, 1892, p. 95). Several specimens are preserved in the Tsushima Middle School. The natives call it "Nobuku."

*29. **Butastur indicus** (Gmelin).

A specimen is preserved in the Middle School, Tsushima.

30. **Milvus lineatus lineatus** (Gray).

1 ♂ juv. and 1 ♀ ad.: Azamo, near Tsutsu-mura, Tsushima, Oct. 21; 1 ♀ juv.: Izugahara Harbour, Oct. 25. Wing measures: 1 ♂ juv. 495 mm., 1 ♀ ad. 477 mm., 1 ♀ juv. 493 mm. Very common on the islands of Tsushima and Iki. Seebohm (Ibis, 1892, p. 95) reported it from Tsushima. These examples are no doubt the typical form; the Formosan form, *formosanus*, has a much shorter wing (Kuroda, 'Dōbutsugaku Zasshi,' xxxii. 1920, p. 245).

*31. **Cerchneis tinnunculus japonica** (Temm. & Schl.).

Two specimens are preserved in the Tsushima Middle School.

32. **Pandion haliaëtus haliaëtus** (Linn.).

Holst obtained the Osprey on the Tsushima Islands (Seebohm, Ibis, 1892, p. 95). Jouy also collected it on the same islands, 25 May, 1885 (Clark, Proc. U.S. Nat. Mus. xxxviii. 1910, p. 159).

33. **Phasianus colchicus karpowi** Buturlin.

P. karpowi harpowi Buturlin.

P. karpowi buturlini Clark.

Nineteen specimens of adults and some young of this Pheasant were shot by Mr. Teraoka on both islands of Tsushima, Sept. 29–Oct. 29. Wing: in 10 adult males, 226–243 mm.; in 9 adult females, 196–206 mm. It is very common on the islands, especially so on the northern island. Dr. Ijima stated that the Pheasant was introduced into the northernmost island, Unishima, Tsushima, from Corea in the Middle Ages, whence it spread over both islands (see Ijima, p. 127).

I carefully examined the series of males of the specimens from Tsushima and those from Corea for the purpose of the identification of the two subspecific names above mentioned. I have come to the conclusion that the series of both forms before me no doubt belong to one subspecies, and cannot be separated into two forms as Mr. Clark believed. The following five points are the results of my study, and show the reasons why the two forms cannot be separated :—

(i.) The colour of the mantle and flanks of the males in the supposed two forms is variable in the same stage and even in the same locality; (ii.) the width and colour of the eyebrow are variable (in some almost white, in some buffy, and in others white suffused with buffy) from the same locality. A specimen from northern Corea has its eyebrow white and distinctly suffused with rusty colour; (iii.) the colour of the crown is also variable in the same locality; (iv.) the colour and barring on the central tail-feathers are also indefinite in individuals; and (v.) the degree of archness of bill is variable, though the examples from Tsushima have their bill on an average slightly more arched than those of Corea, but

this difference seems to be of an indefinite character when large series of the specimens from both Corea and Tsushima are examined.

I wholly agree with the opinion of Dr. Hartert (Nov. Zool. xxiv. 1917, p. 448) His words are as follows:— "Clark (Proc. U.S. Nat. Mus. xxxii. 1907, p. 468) separated the Pheasant from Tsushima Island as *P. karpowi buturlini*. I have examined five adult males from Tsushima, and find them not to differ from *karpowi*, the supposed differences pointed out by Clark being variable or non-existing. One adult male in the Tring Museum has the white ring interrupted in front for about 3·5 cm., the others have the ring complete."

*34. **Coturnix coturnix japonica** Temm. & Schl.

One adult male and four adult females were obtained by Mr. Teraoka on the southern island of Tsushima, Oct. 22–25. The male has its throat still in the reddish summer plumage. These examples average smaller than Hondo specimens. The wings measure as follows:—1 ♂, 94 mm.; 4 ♀, 95–98 mm.

Some specimens are preserved in the Tsushima Middle School.

35. **Limnobænus fuscus erythrothorax** (Temm. & Schl.).

Holst obtained this Rail on Tsushima (Seebohm, Ibis, 1892, p. 400). Seebohm mentioned its length of wing as 4·5 inches (=114·5 mm.). I erroneously recorded (Annot. Zool. Japon. 1918, p. 563) that *L. paykulli* (Ljungh) was obtained on these islands.

*36. **Rallus aquaticus indicus** Blyth.

A specimen was presented by Mr. S. Fukagawa. It was obtained near Izugahara, Tsushima (date unknown). Another specimen is also in the Tsushima Middle School. Very rare on the islands.

*37. **Gallinula chloropus parvifrons** Blyth.

A specimen of this Moorhen is preserved in the Tsushima Middle School.

38. **Hæmatopus ostralegus osculans** Swinhoe.

Messrs. Namiye and Tsuchida obtained specimens on Mitsushima, Tsushima (Ijima, p. 125).

39. **Numenius cyanopus** Vieillot.

A specimen was obtained on Tsushima (Ijima, p. 126). One specimen is preserved in the Tsushima Middle School.

40. **Erythroscelus erythropus** (Pallas).

Totanus fuscus (L.).

A specimen was collected on the northern island of Tsushima (Ijima, p. 126).

41. **Rhyacophilus glareola** (Linn.).

Dr. Ijima (p. 126) reported it from Tsushima.

42. **Heteroscelus incanus brevipes** (Vieillot).

Mr. Teraoka collected this Tattler at Nitamura, Tsushima, Oct. 16. Jouy obtained it on Tsushima, 29 May, 1885 (Clark, *l. c.* p. 154).

43. **Actitis hypoleucus** (Linn.).

Seven specimens of the immature of this Sandpiper were obtained by Mr. Teraoka and myself in four localities on Tsushima, Oct. 2–25. Dr. Ijima (p. 126) and Seebohm (Ibis, 1892, p. 97) also reported it from the islands. It is common but not abundant.

An immature male was collected by Mr. Teraoka at Kujirabuse, Iki Island, Nov. 3.

*44. **Gallinago gallinago raddei** (Buturlin).

A male was shot by Mr. Teraoka at Nitamura, Tsushima, Oct. 5. The Tsushima Middle School also possesses specimens.

45. **Gallinago megala** Swinhoe.

Seebohm (Ibis, 1892, p. 250) reported it as a migrant on Tsushima, Aug. 11 (year not mentioned).

*46. **Neospilura solitaria** (Hodgson).

An adult female was shot by Mr. Teraoka at Nitamura, Tsushima, Oct. 17. Exposed culmen 73·5 mm., wing 157 mm., tail 72·5 mm., tarsus 35·5 mm. Undoubtedly very rare in the island.

The Japanese bird was separated by Bonaparte under the name of *Spilura solitaria japonica*, but no description was given.

*47. **Scolopax rusticola rusticola** Linn.

A specimen is preserved in the Tsushima Middle School.

48. **Larus canus major** Middendorff.

Messrs. Namiye and Tsuchida obtained an immature specimen in Tsushima (Ijima, p. 125).

49. **Larus argentatus vegæ** Palmén.

Dr. Ijima (p. 124) and Seebohm (Ibis, 1892, p. 96) reported this Gull from Tsushima under the name of *L. cachinnans* as well as *L. vegæ*. These two names are apparently applied to different forms, but in Tsushima as well as Hondo only *L. vegæ* is found.

50. **Larus crassirostris** Vieillot.

2 ♂ ad.: Sasuna-mura, Tsushima, Oct. 13; 1 ♀ ad. and 1 ♀ juv.: Izugahara Harbour, Tsushima, Oct. 25. This Gull is very common in the islands. Dr. Ijima (p. 125) and Seebohm (Ibis, 1892, p. 96) also mentioned it.

51. **Cerorhyncha monocerata** (Pallas).

Messrs. Namiye and Tsuchida obtained this Auk in Tsushima, March 18 (Ijima, p. 124), and Holst collected it from the same islands, March 19 (Seebohm, Ibis, 1892, p. 96). A specimen is preserved in the Tsushima Middle School. Probably a spring visitor to the islands.

52. **Cepphus carbo** Pallas.

A single example of this bird was shot by Messrs. Namiye and Tsuchida in Tsushima, March 27 (Ijima, p. 123).

53. **Synthliborhamphus antiquus** (Gmelin).

Several specimens were obtained by Messrs. Namiye and Tsuchida in Tsushima, March 15 (Ijima, p. 123), and Seebohm (Ibis, 1892, p. 96) reported it from the same islands. Specimens are also preserved in the Tsushima Middle School.

54. **Synthliborhamphus wumizusume** (Temminck).

A male example is preserved in the Zoological Museum, Tokyo Imperial University. It was obtained in Tsushima (Ijima, p. 124).

55. **Streptopelia orientalis orientalis** (Latham).

Two specimens were obtained by Mr. Teraoka. One female from Sasuna-mura, Tsushima, Oct. 13, and the other a male from Naiin, Kutamura, Tsushima, Oct. 20. Dr. Ijima (p. 127) and Seebohm (Ibis, 1892, p. 43) reported it from these islands, and specimens are also found in the Tsushima Middle School.

*56. **Janthœnas janthina janthina** (Temm.).

One male was obtained by Mr. Teraoka at Nita-mura, Tsushima, Oct. 7. Crop region almost without purplish lustre. This example is probably not old. Wing measures 241 mm. in length. It is rare in the islands.

*57. **Sphenurus sieboldi sieboldi** (Temm.).

One adult male specimen was presented by Mr. Fukagawa. It was obtained near Izugahara, Tsushima (date unknown). Wing measures 196 mm. in length. A specimen is preserved in the Tsushima Middle School.

*58. **Otus bakkamœna semitorques** Temm. & Schl.

One male example was shot by Mr. Teraoka at Nita-mura, Tsushima, Oct. 3. The wing measures only 164 mm. in length. Seebohm (Ibis, 1892, p. 250) reported it from the islands, and he mentioned that Holst obtained one adult with two young ones on 14 July. Jouy also obtained it on 2 June, 1885 (Clark, *t. c.* p. 159). The Tsushima Middle School has a specimen. It is clear that this bird is a resident on Tsushima.

*59. **Otus japonicus japonicus** Temm. & Schl.

A specimen was obtained by Holst on Tsushima, Oct. 27 (Seebohm, Ibis, 1892, p. 399).

60. **Ninox scutulata scutulata** (Raffles).

Seebohm (Ibis, 1892, p. 250) reported this Owl from Tsushima, Aug. 7. It breeds on the islands. A specimen is preserved in the Tsushima Middle School.

*61. **Cuculus canorus telephonus** Heine.

Three immature specimens were presented by Mr. Kokubu. They were obtained at Kechi, Tsushima, early in the summer of 1920. It is found in the Tsushima Middle School. Very common on Tsushima in summer.

62. **Cuculus optatus optatus** Gould.

One black and another reddish immature bird were presented by Mr. Fukagawa. They were obtained near Izugahara, Tsushima (date unknown). One adult female was shot by Mr. Kokubu and given to me. It was obtained at Kechi, Tsushima, early in the summer of 1920. Very common in summer.

63. **Entomothera coromanda major** (Temm. & Schl.).

An immature specimen was presented by Mr. Fukagawa. It was obtained near Izugahara, Tsushima. There is a specimen in the Tsushima Middle School.

64. **Eurystomus orientalis calonyx** Sharpe.

One adult bird was presented by Mr. Fukagawa. It was obtained near Izugahara, Tsushima (date unknown). It is not uncommon in spring and summer. A specimen is preserved in the Tsushima Middle School. Jouy obtained some specimens on Tsushima, May 24–June 25, 1885 (Clark, *l. c.* p. 161).

65. **Alcedo atthis bengalensis** Gmelin.

Three males, including adult and immature birds, were obtained by Mr. Teraoka on Tsushima, on Oct. 2, 4, 10. Seebohm (Ibis, 1892, p. 95) reported it from the same islands. Some specimens are preserved in the Tsushima Middle School.

66. **Upupa epops saturata** Lönnberg.

An adult specimen was presented by Mr. Fukagawa. It was obtained near Izugahara, Tsushima. The Tsushima Middle School has a specimen of this bird. Dr. Hartert (Vög. pal. Faun. ii. p. 869) reported it from Tsushima. It is probably a spring migrant to the islands.

*67. **Caprimulgus indicus jotaka** (Temm. & Schl.).

There is an example of this Nightjar in the Tsushima Middle School.

*68. **Chætura caudacuta caudacuta** (Latham).

One specimen is preserved in the same school in Tsushima.

69. **Yungipicus kizuki kotataki**, subsp. nov.

Eight specimens were obtained by Mr. Teraoka and others on Tsushima, Oct. 6–19. One female presented by Mr. Kokubu, was collected at Kechi, Tsushima, early in the summer of 1920. The measurements of all Tsushima specimens are as follows:—

Locality.	Date.	Entire culmen	Wing.	Tail.	Tarsus	Sex.
Kechi	Early in summer, 1920	mm. 15	mm. 81·5	mm. 48·5	mm. 15	♀ ad.
Nita-mura (type) ...	6. x. 1920	15	82	50	14	♂ ad.
do. ...	7. x. „	16	86·5	53	14·5	♀ ad.
do. ...	9. x. „	15·5	81	48·5	14·5	♂ ad.
Mitake Forest.....	10. x. „	15	85	51	14·5	♂ ad.
Wakata, Sasu-mura...	19. x. „	15	83·5	50	15	♂ ad.
do. ...	„ „	17	86·5	53	14·5	♀ ad.
Near Izugahara	„ „	16	81·5	47·5	14·5	♂ ad.
do.	„ „	16·5	85	52	14·5	♀ ad.

Messrs. Namiye and Tsuchida obtained six examples of the Pygmy Woodpecker from several localities on Tsushima, between Feb. 19 and March 19, 1891 (Ijima, p. 21). They are preserved now in the Zoological Musuem, Tokyo Imperial University. They measured as follows:—

Sex.	Wing. mm.	Tail. mm.	Tarsus. mm.
♂ ad.	82	50	14
♀ ad.	84	51	15
♀ ad.	85·5	52	14
♀ ad.	86	52	15
♀ ad.	85	51	15
♀ ad.	86	50	15·5

I have carefully compared the above 15 examples with a series of *Y. k. seebohmi* from Hokkaido and Sakhalin, of *Y. k. kizuki* from southern Hondo and Kiusiu, and of *Y. k. nigrescens* from Liu-kiu Islands, and have come to the

conclusion that the Tsushima examples are easily separable from the other forms in the following points :—

The Tsushima example differs from *Y. k. seebohmi* in the coloration of body being very much darker, especially the dark area of upper parts, which is distinctly black, and by the white spots being decidedly smaller. It differs from *Y. k. kizuki* by the upper parts being blacker (not brownish black), especially the mantle, which is almost pure black, only faintly suffused with brown ; also the top of head and nape are darker greyish brown, the ear-coverts darker, the white spots larger and distinctly tinged with olive on the back, and the wing and tail average longer. It also differs from *Y. k. nigrescens* in the general coloration of the upper parts being still blacker, by the white spots being larger, and by the longer tail.

The new form is distinctly larger than *Y. k. kizuki* and *Y. k. nigrescens*. The wing and tail of the last two forms as well as another new form may be tabulated as follows :—

Subspecies.	Sex.	Wing.	Tail.	Locality.	Measured by:
		mm.	mm.		
Y. k. kizuki ...	4 ♂	79–81·5	43–46	S. Hondo & N. Kiusiu	N. Kuroda
	7 ♀	79–83·5	44–47	do.	do.
Y. k. nigrescens.	2 ♂	76–77	42·5–45	Okinawa.	do.
	5 specs.	78–80	...	do.	Hartert.
Y. k. amamii, subsp. nov. Descr. see below	1 ♂	83	46	Amamioshima.	N. Kuroda
	1 ♀	82	46·5	do.	do.
	6 specs.	81–84	...	do.	Hartert.

The number of the white spots on the outer web of the primaries is no doubt variable and is not of much value, but it seems to average 6 spots in *seebohmi*, 5 in *kizuki*, 4–5 in *nigrescens*, and 5–6 (average 6) in the new form from Tsushima (*kotataki*). The coloration on the underside of the new form is not perceptibly different from that of *kizuki*. The dimensions of the wing and tail of *seebohmi* (wing 81–87 mm., tail 47–54 mm.) are almost the same as those of the Tsushima bird. There is also great individual variation in the length of wing in the new form from the same locality, as shown above (wing 81–86·5 mm.).

From the above characters I propose to call the Tsushima bird by the new name, which is derived from the local name of the Woodpecker.

The type-specimen is preserved in my collection. It is an adult male, collected by Mr. N. Teraoka at Nita-mura, Tsushima, 6 October, 1920.

Holst (Seebohm, Ibis, 1892, p. 42) and Jouy (Clark, *l. c.* p. 162) obtained this new form from Tsushima. The Tsushima Middle School has several examples. It is very common in the forest.

I take this opportunity to describe the two following apparently new forms of *Yungipicus* from Japan :—

Yungipicus kizuki amamii, subsp. nov.

Diagnosis.—Very similar to *Y. kizuki nigrescens* of Okinawa, Liu-kiu Islands, but the wing on an average longer. [For measurements see the above table.] It differs from *Y. kizuki kizuki* from Kiusiu by the bill being much broader at the base (breadth of upper mandible at base 8 mm. instead of 6–7 mm.), by the scanty nasal bristles, and by the coloration of body being much darker.

The type-specimen is preserved in my collection. Adult male. Collected on Amamioshima, one of the northern islands of the Liu-kiu group. February 1910.

Yungipicus kizuki nippon, subsp. nov.

Diagnosis.—Very similar to *Y. kizuki seebohmi* of Hokkaido as well as Sakhalin Island, but the white spots on the wing smaller, the white bars on back decidedly narrower, and the white area on the outer tail-feathers smaller. Culmen 15·5 mm., wing 8·5 mm., tail 49 mm., tarsus 13·5 mm.

The type-specimen is from Nakahata, Gotemba, Prov. Suruga, Hondo. Adult male. Collected by myself. 7 April, 1912.

Dr. Stejneger (Proc. U.S. Nat. Mus. ix. 1886, pp. 120–122) considers that examples from Fujiyama and Tate Yama are identical with the Nagasaki bird (the typical *kizuki*). This view is no doubt in error. Specimens from the central Hondo (including Fujiyama and Gotemba, Prov. Suruga) are intermediate between *seebohmi* and *kizuki*. I propose to call the examples by the new name. Specimens from northern Hondo seem to be whiter than in those of the central parts. These specimens are probably stragglers from Hokkaido or Yesso, as already suggested by Dr. Stejneger (Proc. U.S. Nat. Mus. xvi. 1893, p. 629). But this fact is still in question.

I have examined a small series of the Pygmy Woodpecker from Corea and one from Quelpart Island. These examples seem to be identical with the new Hondo form (*nippon*). On the other hand, two specimens from Seven Islands of Izu, Hondo, seem to be separable from the

typical Kiusiu form (*kizuki*) by the longer wing, and to be nearer to the Tsushima example (*kotataki*) than to the Kiusiu form. Further material is needed before these questions can be settled.

70. **Thriponax richardsi** (Tristram).

Mr. Teraoka fortunately shot a fine pair of this splendid Woodpecker at Nita-mura, Tsushima, Oct. 9. They measured as follows :—

Sex.	Culmen. mm.	Wing. mm.	Tail. mm.	Tarsus. mm.
♂ ad.	66	250	181	35
♀ ad.	61	242	175	33·3

I have compared these specimens with four examples from Corea, and have found that there is no tangible difference between them. Messrs. Namiye and Tsuchida obtained it from Tsushima (Ijima, pp. 116–121). Seebohm mentioned it from the same islands (Ibis, 1892, p. 94). It is very rare in the forests of the islands.

*71. **Iynx torquilla japonica** Bonaparte.

One female was collected by Mr. Teraoka at Waniura, Tsushima, Oct. 12. The wing measures 80 mm.

72. **Pitta nympha** Temminck.

Holst (Seebohm, Ibis, 1892, p. 94) obtained this bird from the Tsushima Islands, and Jouy (Clark, *l. c.* p. 160) also collected it from the same islands, 8 June, 1885. This is probably a rare spring or summer visitor to the islands.

*73. **Alauda arvensis japonica** Temm. & Schl.

A specimen is in the Tsushima Middle School. The Lark is undoubtedly a rare bird in the islands.

*74. **Eremophila alpestris euroa** (Thayer & Bangs).

Otocorys alpestris euroa Thayer & Bangs, Proc. N. Engl. Zoöl. Club, v. 1914, p. 43.

One male specimen was shot by Mr. Teraoka at Nita-mura, Tsushima, Oct. 16. Exposed culmen 11 mm., wing 111·5 mm., tail 64·5 mm., tarsus 21 mm. It is no doubt an accidental straggler to the islands.

Thayer and Bangs (*l. c.*) separated this eastern Siberian form from *E. alpestris flava*, the western European form. My measurements are almost the same as those of the typical *europa* from Kolyma, eastern Siberia, except the tail and tarsus, which are somewhat shorter.

75. **Calobates melanope melanope** (Pallas).

Several specimens were obtained by Mr. Teraoka on Tsushima, Oct. 5–18, and a male example was collected by him on Iki Island, Nov. 3. Seebohm reported it from Tsushima (Ibis, 1892, p. 92).

76. **Motacilla alba lugens** Kittlitz.

Ten examples of this Wagtail were shot by Mr. Teraoka on Tsushima, Oct. 21–25, and two females were collected by him on Iki Island, Nov. 1, 3. Dr. Ijima (p. 112) reported it from Tsushima, and Seebohm also mentioned it from the same islands (Ibis, 1892, p. 92).

77. **Motacilla alba leucopsis** Gould.

Messrs. Namiye and Tsuchida obtained a specimen on Tsushima, 24 March, 1891 (Ijima, p. 112).

78. **Anthus trivialis maculatus** Jerdon.

A specimen was obtained by Mr. Teraoka at Sasuna-mura, Oct. 24. Bill from gape 17·5 mm., exposed culmen 11·5 mm., wing 83 mm., tail 62·5 mm., tarsus 21 mm. Seebohm reported it from the same islands (Ibis, 1892, p. 93).

79. **Anthus spinoletta japonicus** Temm. & Schl.

Mr. Teraoka obtained four examples of this form on Tsushima, Oct. 15–25. Dr. Ijima (p. 113) and Seebohm (Ibis, 1892, p. 93) also reported it from Tsushima. Mr. Teraoka first met with this bird on 15 October. It is an autumn visitor to the islands.

80. **Hypsipetes amaurotis amaurotis** (Temminck).

Six examples were obtained by Mr. Teraoka on Tsushima, Oct. 3–27, and a male was collected by him on Iki Island, Nov. 3. These examples agree well with the Hondo specimens before me, as Dr. Ijima has already mentioned

(pp. 107–109). Seebohm (Ibis, 1892, p. 90) reported it from Tsushima. Specimens are also preserved in the Tsushima Middle School. It is one of the commonest birds on the islands, and is said to be more common in winter than in summer. I think some of them are the breeding-birds, but the greater number are winter visitors.

81. **Hypsipetes amaurotis hensoni** (Temminck).

Mr. Clark (*l. c.* p. 74) reported an example of *H. amaurotis hensoni* from Tsushima, 28 May, 1885. I have some doubt whether it was the true *hensoni* or a smaller example of the former form.

82. **Terpsiphone atrocaudata atrocaudata** (Eyton).

A female was obtained by Mr. Teraoka at Nita-mura, Tsushima, Oct. 7.

Seebohm (Ibis, 1892, p. 90) reported that Holst obtained this bird in summer on Tsushima, and Dr. Stejneger (Proc. U.S. Nat. Mus. xxxvii. 1910, p. 653) also mentioned that Jouy collected specimens on the same islands, 6–7 June, 1885. It is clear that this bird migrates to the islands about the end of spring and remains there until early autumn.

83. **Alseonax latirostris** (Raffles).

Seebohm (Ibis, 1892, p. 90) reported this Flycatcher from Tsushima.

84. **Hemichelidon atricapilla tomensis** Johansen.

Hemichelidon sibirica (Gm.).

Seebohm (Ibis, 1892, p. 90) reported this bird from Tsushima.

*85. **Hemichelidon griseisticta** Swinhoe.

An example of this species is preserved in the Tsushima Middle School.

86. **Zanthopygia narcissima narcissima** (Temminck).

Two females and one immature male were obtained by Mr. Teraoka at Nita-mura, Tsushima, Oct. 4–9.

Seebohm (Ibis, 1892, p. 89) reported it from Tsushima. The Tsushima Middle School has specimens of this bird.

87. **Cyanoptila cyanomelana** (Temminck).

Seebohm (Ibis, 1892, p. 89) reported this bird from Tsushima. A male specimen is in the Tsushima Middle School.

88. **Oreocincla dauma aurea** (Holandre).

A specimen is preserved in the Tsushima Middle School.

89. **Turdus eunomus** Temminck.

Dr. Ijima (p. 106) reported this Thrush from the islands of Tsushima and Iki, and Seebohm (Ibis, 1892, p. 88) also recorded it from the former islands. The Tsushima Middle School has specimens.

90. **Turdus naumanni** Temminck.

Dr. Ijima (p. 106) and Seebohm (Ibis, 1892, p. 88) reported this bird from Tsushima. The Tsushima Middle School possesses a specimen.

*91. **Turdus chrysolaus** Temminck.

Seebohm (Ibis, 1892, p. 88) reported this bird from Tshushima.

*92. **Turdus obscurus** Gmelin.

Mr. Teraoka obtained a female specimen at Mitake, Tsushima, Oct. 10.

93. **Turdus pallidus** Gmelin.

Seven specimens were obtained by Mr. Teraoka and myself on Tsushima, Oct. 10–27. Dr. Ijima (p. 106) and Seebohm (Ibis, 1892, p. 88) reported it from Tsushima. Very common in winter on Tsushima.

94. **Monticola solitaria latouchei**, subsp. nov.

Diagnosis.—Similar to *M. solitaria magna* (La Touche) from Japan and Corea, but distinguishable from it by the wing averaging shorter. It differs from *M. solitaria philippensis* (Müller) from Formosa by its longer wing, by its larger and longer bill, and by the longer tarsus.

Measurements of type specimen:—Exposed culmen 22·5 mm., wing 121 mm., tail 76·5 mm., tarsus 30 mm.

The type-specimen is from Sasu-mura, Tsushima. Adult male. Collected by Mr. N. Teraoka. 24 October, 1920.

Differential measurements of three known Japanese and Formosan as well as the new form of the species may be tabulated as follows :—

M. solitaria magna.

Locality.	Sex.	Exposed culmen.	Wing	Tail.	Tarsus.
		mm.	mm.	mm.	mm.
Japan ..	15♂	21–24·5	120–128	79·5–86	29–32·5
„	15♀	21–24·5	117–125	79–86	29·5–32
Corea ..	2♂	23, 24	126, 129	80·5, 82·5	32·5, 32
Dagelet Is., Sea of Japan	3♂	23·5–24·5	123–128·5	82–85	29–31
„	1♀	23·5	123	82	31·5

M. solitaria latouchei, subsp. nov.

Locality.	Sex.	Exposed culmen.	Wing.	Tail.	Tarsus.
		mm.	mm.	mm.	mm.
Tsushima.	6♂	22·5–23	117·5–124	76·5–86	30–31
„	3♀	22–23	116·5–119·5	77·5–79·5	29–30
Iki Isl.	2♀	21, 21	116, 118·5	77, 79·5	30, 32·5

M. solitaria philippensis=manila.

Locality.	Sex.	Exposed culmen.	Wing.	Tail.	Tarsus.
		mm.	mm.	mm.	mm.
Formosa.	1 ♂	20	121·5	82	28·5
„	1 ♀	19·5	110	74	28

Mr. La Touche's measurements of the wing of the two forms are as follows :—

M. solitaria magna.

8 ♂ : 4·8–5·05 in. = 122–127·5 mm.

4 ♀ : 4·62–4·85 in. = 117–122·5 mm.

"The second primary is between the fifth and sixth."

M. solitaria philippensis = manila.

13 ♂ : 4·5–4·76 in. = 114–120·5 mm.

7 ♀ : 4·47–4·6 in. = 112·5–116·5 mm.

"The second primary is either between the fourth and fifth, or equal to or just below the fifth."

The length of wing in the new form (*latouchei*) is shorter than that of *magna*, as given by Mr. La Touche (Bull. B. O. C. xl. 1920, p. 97). I therefore sent the measurements of the new form to Mr. La Touche, then at Mengtsz, Yunnan, for comments. He has kindly written to me as follows :— "I think your Tshushima and Iki Rock-Thrushes are the Chinese *Petrophila manila*. The measurements are those of Chinwangtao birds." But I have compared them with two Formosan examples of *M. solitaria philippensis = manila*, and have found that the Formosan bird is much smaller and shorter in bill ! The Tsushima and Iki birds before me are apparently intermediate forms between true *magna* of Japan proper and *philippensis* from Formosa. In my Tsushima and Iki examples the second primary is between the fifth and sixth, except that one female has its second primary between the fourth and fifth. In one Hondo example the second primary is between the fourth and fifth ! The new form is nearer to *magna* than to *philippensis*.

The subspecific name is given in honour of Mr. J. D. D. La Touche.

Dr. Ijima (p. 106), Seebohm (Ibis, 1892, p. 89), and Mr. Clark (*l. c.* p. 175) reported the Rock-Thrush from Tsushima.

*95. **Calliope calliope** (Pallas).

A male was obtained by Mr. Teraoka at Kuroda, Tsushima, Oct. 25.

96. **Phœnicurus auroreus auroreus** (Pallas).

Mr. Teraoka obtained four specimens at Tsutsu-mura, Tsushima, Oct. 21, and one male at Kujirabuse, Iki, Nov. 3. Seebohm reported it from Tsushima (Ibis, 1892, p. 89). The Tsushima Middle School has specimens. Dr. Ijima (p. 107) reported it from the island of Iki.

97. **Tarsiger cyanurus** (Pallas).

One female was obtained by me at Kuta-mura, Tsushima, Oct. 20, and Mr. Teraoka obtained it from Iki, Nov. 3. Dr. Ijima (p. 107) reported it from Tsushima. Two examples of this species are preserved in the Tsushima Middle School.

98. **Saxicola torquata stejnegeri** (Parrot).

Six specimens were obtained by Mr. Teraoka on Tsushima, Oct. 11–18. Seebohm (Ibis, 1892, p. 89) reported it from the same islands.

99. **Acrocephalus bistrigiceps** Swinhoe.

A female was shot by Mr. Teraoka at Tsutsu-mura, Tsushima, Oct. 21. Holst obtained it from Tsushima (Seebohm, Ibis, 1892, p. 248).

*100. **Urosphena squamiceps** (Swinhoe).

Two specimens were collected by Mr. Teraoka at Nita-mura, Tsushima, Oct. 1, 3.

101. **Horeites cantans cantans** (Temm. & Schl.).

Three specimens were captured by Mr. Teraoka on Tsushima, Oct. 3–26, and four specimens were obtained by him on Iki, Nov. 3. Dr. Ijima (p. 109) and Seebohm (Ibis, 1892, p. 91) reported it from Tsushima.

*102. **Acanthopneuste borealis borealis** (Blasius).

Two specimens were obtained by Mr. Teraoka at Nita-mura, Tsushima, Oct. 2, 4.

*103. **Acanthopneuste borealis xanthodryas** Sw.

Two specimens were obtained by Mr. Teraoka at Nita-mura, Tsushima, Oct. 4, 6.

104. **Acanthopneuste occipitalis coronata** (Temm. & Schl.).

Jouy obtained this form from Tsushima, 28 May, 1885 (Clark, *l. c.* p. 174).

105. **Troglodytes troglodytes utanoi**, subsp. nov.

Diagnosis.—Resembles *T. troglodytes ogawæ* Hartert, but the head only darker, and the rump not darker than the back. It differs from *T. troglodytes fumigatus* by the general coloration of body being distinctly darker, especially on the head. General colour of upper parts very dark brown, with broad and distinct bars; the bars also distinct on the mantle (there are no bars on the mantle in *fumigatus*); lower back and rump somewhat paler coloured than the upper back; upper tail-coverts and tail-feathers tinged with dark rusty, and the bars on them distinct and broad; four small white spots on the middle wing-coverts in the new form, as in *fumigatus* (six in *peninsulæ* of Corea); ear-coverts dark brown and the pale shafts on the ear-coverts rather indistinct; lower parts of the body dark brown, with the centre of the lower breast and abdomen distinctly pale buff; bars on the latter parts very distinct, most of them formed by transverse lines, instead of V-shaped markings as in *fumigatus*; under tail-coverts deep chestnut, with very distinct bars and pure white subterminal spots; in *fumigatus* the white spots are generally on the tips of the feathers of the under tail-coverts.

The type-specimen was obtained by Mr. Y. Utano at Izugahara, Tsushima, 21 December, 1920, and presented to me.

Measurements :—

Locality.	Date.	Exposed culmen.	Wing.	Tail.	Tarsus	Sex.	Collected by
		mm.	mm.	mm.	mm.		
Izugahara, Tsushima (type).	21. xii. 1920	12	50	34·5	16	Ad.	Mr. Utano.
Izugahara, Tsushima.	March 1921	11	44·5	31·5	16	Ad.	do.
do.	„ „	11	48·5	33	17	Ad.	do.
Wakamiyajima, Iki ...	21. xi. 1920	12	45	30	16	ad.	Mr. Teraoka.

The specimen from Iki Island is similar to the type of the subspecies. The subspecific name is given in honour of Mr. Utano.

Seebohm (Ibis, 1892, p. 92) reported this bird from Tsushima as *T. fumigatus*.

*106. **Hirundo rustica gutturalis** Scopoli.

A specimen of this Swallow is preserved in the Tsushima Middle School.

107. **Pericrocotus cinereus cinereus** Lafresnaye.

Seebohm (Ibis, 1892, p. 92) reported this bird as a spring visitor to the islands of Tsushima.

*108. **Bombycilla japonica** (Siebold).

A specimen is in the Tsushima Middle School.

109. **Lanius bucephalus** Temm. & Schl.

Mr. Teraoka obtained a female at Nita-mura, Tsushima, Oct. 2, and he collected a pair of this Shrike at Kujirabuse, Iki Island, Nov. 3. Dr. Ijima (p. 112) and Seebohm (Ibis, 1892, p. 92) reported it from Tsushima. The Tsushima Middle School also has specimens.

110. **Lanius tigrinus** Drapiez.

Jouy obtained this Shrike on Tsushima, 6 June, 1885 (Clark, *t. c.* p. 170).

111. **Lanius cristatus superciliosus** Latham.

Seebohm reported it from Tsushima (Ibis, 1892, p. 92).

*112. **Lanius sphenocercus sphenocercus** Cabanis.

A fine specimen is preserved in the Tsushima Middle School. This is a very remarkable addition to the avifauna of the island.

113. **Parus major quelpartensis** Kuroda.

Nine specimens of this form were obtained by Mr. Teraoka on Tsushima, Oct. 3–28. The colour of the lower parts,

including the flanks, varies from deeper to paler greyish olive ; the upper tail-coverts are paler than in *P. major kagoshimæ* Takatsukasa (' Dobutsugaku Zasshi,' xxxi. 1919, p. 55) from southernmost Kiusiu, but rather deeper than that of the typical Hondo form, *P. major minor*. This Tit ranges from Quelpart Island and Tsushima to the northern parts of Kiusiu (Prov. Chikuzen, etc.). Dr. Ijima (p. 110) and Seebohm (Ibis, 1892, p. 91) mentioned it from Tsushima.

114. **Sittiparus varius ijimæ**, subsp. nov.

Diagnosis.—Very similar to *S. varius yakushimensis* from Yakushima, but the tarsus averages longer and the bill is much thicker. It differs from *S. v. namiyei* of Niijima, Seven Islands, by the under parts being somewhat paler, by the chest having a paler patch, and by the shorter bill. It differs from *S. v. saisiuensis* from Quelpart Island by the deeper coloration of the body, by the side of the face being buffy, not whitish, and by the tarsus averaging shorter. It differs from *S. v. sunsunpi* from Tanegashima by the longer tarsus and by the side of the face not being so white. It also differs from *S. v. varius* from Hondo (probably from Hokkaido) by the under parts being decidedly deeper in colour, by the mantle being very faintly tinged with olive, and by the tarsus averaging longer. It differs essentially from *S. v. owstoni* and *S. v. utsurioensis*.

The type-specimen was obtained by Mr. Teraoka at Nitamura, Tsushima, Oct. 7. It is an adult male, and is preserved in my collection.

Measurements :—6 males : culmen 13–13·5 mm., wing 74·5–79 mm., tail 54–59·5 mm., tarsus 19–20 mm. 5 females : culmen 12·5–13·5 mm., wing 71·5–73·5 mm., tail 50·5–53·5 mm., tarsus 18–19·5 mm.

The new name is given in honour of the late Dr. I. Ijima.

Differential measurements and colour of the parts of the body in the forms of *Sittiparus varius* are as follows :—

Subspecies.	Entire culmen.	Wing.	Tarsus.	Colour of mantle.	Colour of chest.	Colour of side of face.	Locality.
	mm.	mm.	mm.				
1. *S. v. owstoni*	17	74–86	20–21	Distinctly tinged with olive.	Chestnut, with a pale patch.	Chestnut.	Miyakeshima & Hachijioshima.
2. *S. v. utsoriensis* ..	14·5–15	77·5–81	20–22	do.	do.	Pale buffy.	Dagelet Is.
3. *S. v. namiyei*	13·5–14	71–82	20–21	Faintly tinged with olive.	do.	Buffy, deeper than 2.	iishima, Seven Is.
4. *S. v. ijimæ*	12·5–13·5	71·5–79	18–20	Very faintly tinged with olive.	do.	Buffy, ratherpaler than 3 and 5.	Tsushima.
5. *S. v. yakushimensis* .	12·5–13·5	71–77·5	17–19	Without olive tinge.	do.	Buffy, deeper than 2.	Yakushima.
6. *S. v. varius*	12·5–13·5	72–80	16–19	do.	do.	Buffy, in some specimens with whitish.	Hondo and Hokkaido.
7. *S. v. saisiuensis*	12·5 13·5	76–80·5	20·5–21	do.	do.	Average whitish.	Quelpart Is.
8. *S. v. sunsunpi*	12–12·5	72·5–78	17–18·5	Rather deeper, but without olive.	do.	do.	Tanegashima.
9. *S. v.*, subsp. nov.?, .	*12	*67	*19	....	do.	....	Okinawajima.
10. *S. v. castaneoventris* .	10	59·5–61·5	14	Uniform.	Deep chestnut.	Whitish.	Formosa.

* Indicates the measurements which were taken by Dr. Stejneger from a specimen.

Specimens from Corea, northern Kiusiu, and Amamioshima were examined by me, but they are too few in number for exact identification. But it seems probable that the example from Corea is almost identical with that of Quelpart Island, though the tarsus is a trifle shorter. A specimen from northern Kiusiu is approximately identical with this new form, though here too the tarsus is a trifle shorter. A specimen from Amamioshima is probably identical with that of Yakushima, one of the southern islands of Kiusiu.

In Tsushima the new form is very common, and no doubt it breeds there. Mr. Clark mentioned it as a common breeding resident on Tsushima (*l. c.* p. 172). Dr. Ijima (p. 110) and Seebohm (Ibis, 1892, p. 91) both reported this Tit from Tsushima. Seebohm and Clark mentioned the species in Corea. It is probably a winter visitor from Japan, but I have specimens of this species from Corea taken during the breeding-season.

115. **Periparus ater teraokai**, subsp. nov.

Diagnosis.—Similar to *P. ater insularis* from Hondo (probably from N. Kiusiu), but the culmen decidedly longer and the coloration of the upper parts deeper. The occipital feathers only 12 mm. long.

The type-specimen was obtained by Mr. Teraoka at Nitamura, Tsushima, Oct. 6. It is an adult male, preserved in my collection.

The subspecific name is given in honour of the collector.

Measurements :—

Locality.	Date.	Entire culmen.	Wing.	Tail.	Tarsus.	Sex.
		mm.	mm.	mm.	mm.	
Nitamura, Tsushima (type)	6. x. 1920	11	60·5	45·5	16·5	♂ ad.
Near Izugahara, Tsushima.	19. x. 1920	11	58	44	15·5	♂ ad.

The lengths of the entire culmens of *P. ater insularis* from Hondo, Kiusiu, and Corea are as follows :—

Locality.	Entire culmen.	Number of specimens examined.
Hondo	9-9·9 mm.	22
Kiusiu	9·5 „	1
Corea	8·5-10 „	9

In none of these specimens does the entire culmen exceed 10 mm.; the culmen reaches 10 mm. in only one Corean male.

Seebohm reported this Tit as *Parus ater pekinensis* from Tsushima (Ibis, 1892, p. 91).

116. **Ægithalos caudatus trivirgatus** (Temm. & Schl.).

Mr. Teraoka obtained eight specimens of this form on Tsushima, Oct. 6–25. All these specimens are the same as Hondo examples. Wings measure 57–62 mm. in length. Holst obtained specimens on Tsushima (Seebohm, Ibis, 1892, p. 91).

117. **Regulus regulus japonensis** Blakiston.

Dr. Ijima (p. 110) and Seebohm (Ibis, 1892, p. 91) reported this bird from Tsushima. Specimens are preserved in the Tsushima Middle School.

118. **Corvus coronoides** Vig. & Horsf. [subsp.?].

Dr. Ijima (pp. 110–112) mentioned the Tsushima form under the name of *Corvus macrorhynchus* Wagl., and he pointed out that it is an intermediate between *C. coronoides japonensis* Bp. from Hondo and *C. coronoides connectens* Stresemann from Loo-choo Is. Mr. Teraoka and I failed to secure a specimen of this interesting form on the islands. More materials are needed before it can bear a new name. This Crow is not so common as the next species.

119. **Corvus corone orientalis** Eversmann.

Four specimens were obtained by Mr. Teraoka and myself on Tsushima, Oct. 23–25, and he collected his examples on Iki Island, Nov. 1. Dr. Ijima (p. 112) and Seebohm (Ibis, 1892, p. 92) reported it from Tsushima. Very common on the islands of Tsushima and Iki.

120. **Frugilegus frugilegus pastinator** (Gould).

Mr. Teraoka obtained one adult and one immature specimen at Tsutsu-mura, Tsushima, Oct. 23. It is a winter visitor from Corea to the islands. Seebohm (Ibis, 1892, p. 92) reported it from Tsushima.

121. **Garrulus glandarius namiyei**, subsp. nov.

Diagnosis.—Very similar to *G. glandarius japonicus* Schlegel from Hondo and Kiusiu, but distinguishable from it by the bill being decidedly thicker and on an average longer.

The type-specimen, an adult female, was obtained by Mr. Teraoka at Nukadake-mura, Tsushima, Oct. 28. It is preserved in my collection.

The subspecific name is given in honour of the late Mr. M. Namiye, who obtained it on Tsushima in 1891.

Measurements :—

Locality.	Date.	Entire culmen	Depth of bill at nostril.	Wing.	Tail.	Tarsus	Sex.
		mm.	mm.	mm.	mm.	mm.	
Nukadake-mura, Tsushima (type).	28. x. 1920	31	13·5	173	149	40	♀ ad
Nita-mura, Tsushima.....	3. x. 1920	31	13	169	148	39·5	♀ ad.
Uchiyama, „	21. ii. 1891	31	13·5	174	148·5	38·5	♀
Kuneinaka, „	6. iii. 1891	30	13·5	178	151	40	♂ ♀
„ „	6. iii. 1891	29·5	13	178	153	39·5	♂ ad.

The length and depth of bill in specimens from Hondo and Kiusiu are as follows :—

Locality.	Entire culmen.	Depth of bill at nostril.	Number of specimens examined.
Hondo....	27·5–32 mm.	11–12·5 mm.	32
Kiusiu....	28–28·5 „	11–12 „	3

In none of these examples does the depth of bill at nostril exceed 12·5 mm. The length of bill also is on an average shorter and under 30 mm., except only in the case of one example reaching 32 mm.

Dr. Ijima (p. 112) and Seebohm (Ibis, 1892, p. 92) reported this Jay from Tsushima. Mr. Clark (*t. c.* p. 167) also reported that Jouy obtained it on the same island, 21 May, 1886. The Tsushima Middle School has specimens. It is a resident on Tsushima.

122. **Zosterops palpebrosa ijimæ** Kuroda.

Eleven specimens were obtained by Mr. Teraoka and myself on Tsushima, Oct. 5–23, and Mr. Teraoka collected a specimen on Iki Island, Oct. 31. The length of the exposed culmen of all the specimens is 12·5 mm. This form ranges from northern Kiusiu (Prov. Chikuzen), Iki, Tsushima, Quelpart, and Dagelet islands to the southern parts of Corea. Dr. Ijima (p. 109), Seebohm (Ibis, 1892, p. 90), and Mr. Clark (*l. c.* p. 166) reported it from Tsushima. It is a very common resident.

*123. **Coccothraustes coccothraustes japonicus** (Temm. & Schl.).

A specimen is preserved in the Tsushima Middle School.

124. **Fringilla montifringilla subcuneolata** Kleinschmidt.

Seebohm (Ibis, 1892, p. 93) reported this bird from Tsushima. A specimen is preserved in the Tsushima Middle School. It probably belongs to this form.

*125. **Chrysomitris spinus** (Linn.).

Two specimens are preserved in the Tsushima Middle School.

126. **Chloris sinica minor** (Temm. & Schl.).

Dr. Ijima (p. 113) and Seebohm (Ibis, 1892, p. 93) reported this Greenfinch from Tsushima. Two specimens are preserved in the Tsushima Middle School.

*127. **Pyrrhula pyrrhula griseiventris** Lafr.

A specimen is preserved in the Tsushima Middle School.

128. **Passer montanus saturatus** Stejneger.

Four specimens of this form of Tree-Sparrow were obtained by Mr. Teraoka on Tsushima, Oct. 25. Dr. Ijima (p. 113) mentioned that it is very abundant near houses, as in Hondo, but I met the Sparrow in very small numbers when I visited the islands. Seebohm (Ibis, 1892, p. 93) reported it from Tsushima.

129. **Emberiza cioides ijimæ** Stejneger.

Eleven specimens of this form were obtained by Mr. Teraoka on Tsushima, Oct. 4–28, and he collected four examples of the same form on Iki Island, Oct. 31 to Nov. 2. I have recently examined a series of specimens of *E. cioides* from Japan, and come to the conclusion that the form (*ijimæ*) ranges over almost all parts of Kiusiu, including Tanegashima, Iki, and Tsushima, as well as Quelpart and Dagelet islands. Specimens from Seven Islands of Izu also seem to me to belong to the present form. The form is distinguishable from *ciopsis* from Hondo and Hokkaido by the ear-coverts being tinged with chestnut and the side of the crown being distinctly reddish chestnut. The form is not found in the peninsula of Corea, where *castaneiceps* occurs. Dr. Ijima (pp. 114–115) and Seebohm (Ibis, 1892, p. 93) reported it from Tsushima.

130. **Emberiza elegans** Temminck.

Eight males were brought back from Tsushima. They were collected Oct. 3–29. Dr. Ijima (p. 116) and Seebohm (Ibis, 1892, p. 94) reported it from the same islands. Very common on the islands. It seems that the female of this species is very scarce.

131. **Emberiza rustica** Pallas.

A female specimen was brought home. It was obtained at Nukadake-mura, Tsushima, Oct. 28. Seebohm (Ibis, 1892, p. 93) reported it from the same islands. It is an autumn and winter visitor.

132. **Emberiza spodocephala personata** Temm.

Dr. Ijima (p. 116) mentioned this form from Tsushima.

133. **Emberiza sulphurata** Temm. & Schl.

Two examples of this species were obtained by Mr. Teraoka on Tsushima, Oct. 23. Seebohm (Ibis, 1892, p. 93) reported it from Tsushima, April 14. It is probably a resident.

134. **Tisa variabilis** (Temminck).

Dr. Ijima (p. 116) mentioned this bird from Iki Island, and Seebohm (Ibis, 1892, p. 94) reported it from Tsushima.

The following species are said to have occurred on Tsushima :—

Dryobates sp.? Mr. Utano's information.

Pica pica sericea Gould. A wanderer from Corea.

Icoturus akahige (Temm.). Mr. Utano's information.

Sitta europæa L. [subsp.?]. Mr. Teraoka met with a Nuthatch.

III.—*A short systematic review of the African Francolins.* By C. W. Mackworth-Praed, M.A., F.Z.S., M.B O.U.

The following is a short review of the Francolins of Africa with particular regard to their distribution and geographical races. I have attempted no identifications of the various species, for their distinctions are in the majority of cases well known, and can be found in any work on the subject. I have, however, indicated the racial differences. The group has not been treated of trinomially before in anything like its entirety, and it will be found that I have adopted a wide view of what constitutes a species.

The material I have had before me has been large, for not only have I had the opportunity of examining that in the British Museum and in Lord Rothschild's Museum at Tring, but also the private collections of Sir Geoffrey Archer, Col. S. R. Clarke, Sir Frederick Jackson, and some part of that of Dr. V. G. L. Van Someren. To all these gentlemen I am greatly indebted. It will be noticed that I have stated under each species the number of specimens examined, and also where they are to be met with, the latter a point of some importance to anyone wishing to know where to find the necessary material for further study of the group. All measurements I have given are those taken by myself, and the localities given in the range of a species are, in most